

wheel-like shape, from which rise in a radiate form delicate cilia ; these cilia move rapidly, and with them, after raising the shell on its edge, the animal runs round, and at times darts across with surprising swiftness ; occasionally they lie on their side and then spin round on the shell with the mouth going backwards, occasioned by the position and rapid movements of the cilia. They frequently rest, and withdraw altogether into the shell. The adult animal is tubercled, about  $1\frac{2}{3}$ ths of an inch long, covered with dark brown and red blotches intermingled with spots of white ; it is furnished with two horns, one on each side of the head ; these are leaf-like on the hinder part. The branchiæ are placed in a semicircular manner near the tail, the two ends being turned in so as almost to touch the outside, the open part being towards the tail ; on the outer part of the semicircle are eighteen feather-like branchiæ, with three on each of the parts which turn in. They left the rocks in February, and I have not *seen one since* ; thus showing them to be inhabitants of deep water, and that they only came in shore for the purpose of shedding their ova. I succeeded in hatching the young from two different sets of ova several days between.

Up to March of the present year 1845, I have not seen a single animal of the above *Doris*, or any of the ova : this is probably owing to the severity of the weather. The first part of 1844 was much more genial, and thus tempted the *Doris* in-shore. I merely throw this out as a hint well worthy of notice.

#### EXPLANATION OF PLATE XIV.

*Fig. 1.* The embryo with its wheel-like arms displayed when raised on its edge.

*Fig. 2.* Ditto on its side.

*Fig. 3.* Empty shell :—all highly magnified..

#### ON THE NIDI OF BUCCINUM RETICULATUM. BY C. W. PEACH\*.

In your valuable publication for March 1844, p. 203, you inserted an opinion of mine, that the nidus there described belonged to the *Buccinum reticulatum* ; I have since continued to notice them, and all my observations completely confirm what I then stated. I succeeded in the spring, and again in August 1844, by keeping the nidi in sea-water in my house, in hatching the young ; thus showing that, like the *Purpura lapillus*, they deposit their nidi all the year round. These young so much resemble those of the *Doris*, both in shell and animal, that the former description will do for this. It is a singular circumstance, that an animal which is naked at maturity should require a shelly covering when young, as well as one which always possesses a shell in all its stages of growth. It is one of those interesting circumstances which meet the naturalist at every step he takes ; to me it proves design in providing a covering to shelter it when in a weak and helpless state. Both these young shells have myriads of enemies in the small infusoria, which may be noticed with a powerful microscope hovering round them, and ready

\* Read at the last Annual Meeting of the Royal Institution of Cornwall.

to devour them the instant weakness or injury prevents their keeping in motion the cilia, which serve both for locomotion and defence. Let these cease to move, a regular attack is made, and the animal is soon devoured; and it is interesting to observe several of these scavengers sporting in the empty shell as if in derision at the havoc they have made. The shells are mere specks; what must be the size of the conquerors, when the speck-like shell will hold several of them! Thousands of both of the young animals perish early—in a few hours after coming into existence; this must be the case, for if all came to maturity that are hatched, our coast would be literally *covered* instead of being only *spotted*.

OBITUARY.—It is with much concern that we record the early loss of a very distinguished cultivator of botanical science:

Died at Malacca, on Sunday the 9th of February, after a short illness, William Griffith, Esq., of the Madras Medical Service, and late Acting Superintendent of the Honourable East India Company's Botanic Garden at Calcutta, after having been antecedently employed in the scientific missions sent into the Tenasserim provinces, to Assam, to Suddujow and Ava, Bootan, Afghanistan, Khorassan, &c. He was an active member of several scientific societies in Europe, and was in his thirty-fifth year.

#### METEOROLOGICAL OBSERVATIONS FOR APRIL 1845.

*Chiswick*.—April 1. Slight haze: clear. 2, 3. Foggy: fine: clear. 4. Foggy: cloudless. 5. Thick haze: fine. 6. Clear and fine: sharp frost. 7. Clear and frosty: very dry air: slight frost. 8. Densely overcast: cloudy: sharp frost. 9. Foggy: overcast. 10. Showery throughout. 11. Rain: dense clouds and cold: frosty at night. 12. Cloudy and fine: rain. 13. Showery: clear and fine. 14. Boisterous. 15. Boisterous, with slight rain. 16. Overcast: fine. 17. Fine. 18. Overcast: fine. 19. Overcast and cold: very fine. 20. Slight haze: very fine. 21, 22. Very fine. 23. Sultry. 24—26. Very fine. 27. Showery. 28. Overcast. 29. Very fine. 30. Overcast.—Mean temperature of the month 1° above the average.

*Boston*.—April 1. Cloudy. 2—5. Fine. 6. Fine: ice this morning. 7. Cloudy. 8. Cloudy: rain A.M. 9. Fine. 10. Windy: rain P.M. 11. Windy: rain A.M. 12. Cloudy. 13. Cloudy: rain P.M. 14. Windy: rain P.M. 15. Cloudy and stormy: rain early A.M. 16. Cloudy. 17. Fine. 18. Cloudy. 19—21. Fine. 22. Cloudy. 23—25. Fine. 26. Rain. 27. Cloudy. 28—30. Fine.

*Sandwick Manse, Orkney*.—April 1. Bright: damp. 2. Bright: clear. 3, 4. Clear: cloudy. 5. Clear. 6. Fog: clear. 7, 8. Bright: clear. 9. Rain: cloudy. 10, 11. Bright: cloudy. 12, 13. Cloudy: clear. 14. Rain: clear. 15. Clear. 16. Cloudy: drizzle. 17. Drizzle: fog. 18. Bright: fog. 19. Clear. 20, 21. Fine: clear: fine. 22. Fine. 23. Fine: fog. 24. Cloudy. 25. Bright: cloudy. 26. Rain: damp. 27. Bright: cloudy. 28. Showers. 29. Bright: clear. 30. Cloudy.

*Applegarth Manse, Dumfries-shire*.—April 1, 2. Fine: dry: hoar frost. 3. Remarkably fine. 4. Very droughty: raw frost. 5. Very droughty, but milder. 6. Hoar frost. 7. Slight frost. 8. Rain and hail. 9. Slight showers. 10. Frequent showers. 11. Clear: fair, but cold. 12. Cloudy: drops: rain. 13. Hail and rain. 14. Slight showers. 15. Dry and cold. 16. Fair: fine: slight frost. 17. Very fine. 18. Fine. 19—22. Fine: droughty. 23, 24. Fine. 25. A few drops: rain. 26. Heavy rain. 27. Heavy rain and flood. 28. Fair, but unsettled. 29. Shower P.M. 30. Heavy rain P.M.